

Department of the Army



**US Army Corps
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Vicksburg District



A Look at PIANC History Concrete Mats and Bank Stabilization

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Agenda

- **History of ACM & PIANC Influence**
- **Present U.S. method of placing concrete mattress**
- **Present Japanese method of placing concrete mattress**



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History of Concrete Mattress & PIANC Influence



Centenaire
de 48, 182
l'Association Internationale
Permanente des Congrès
de Navigation



Centenary
of
the Permanent International
Association of Navigation
Congresses

1885-1985

1885-1985





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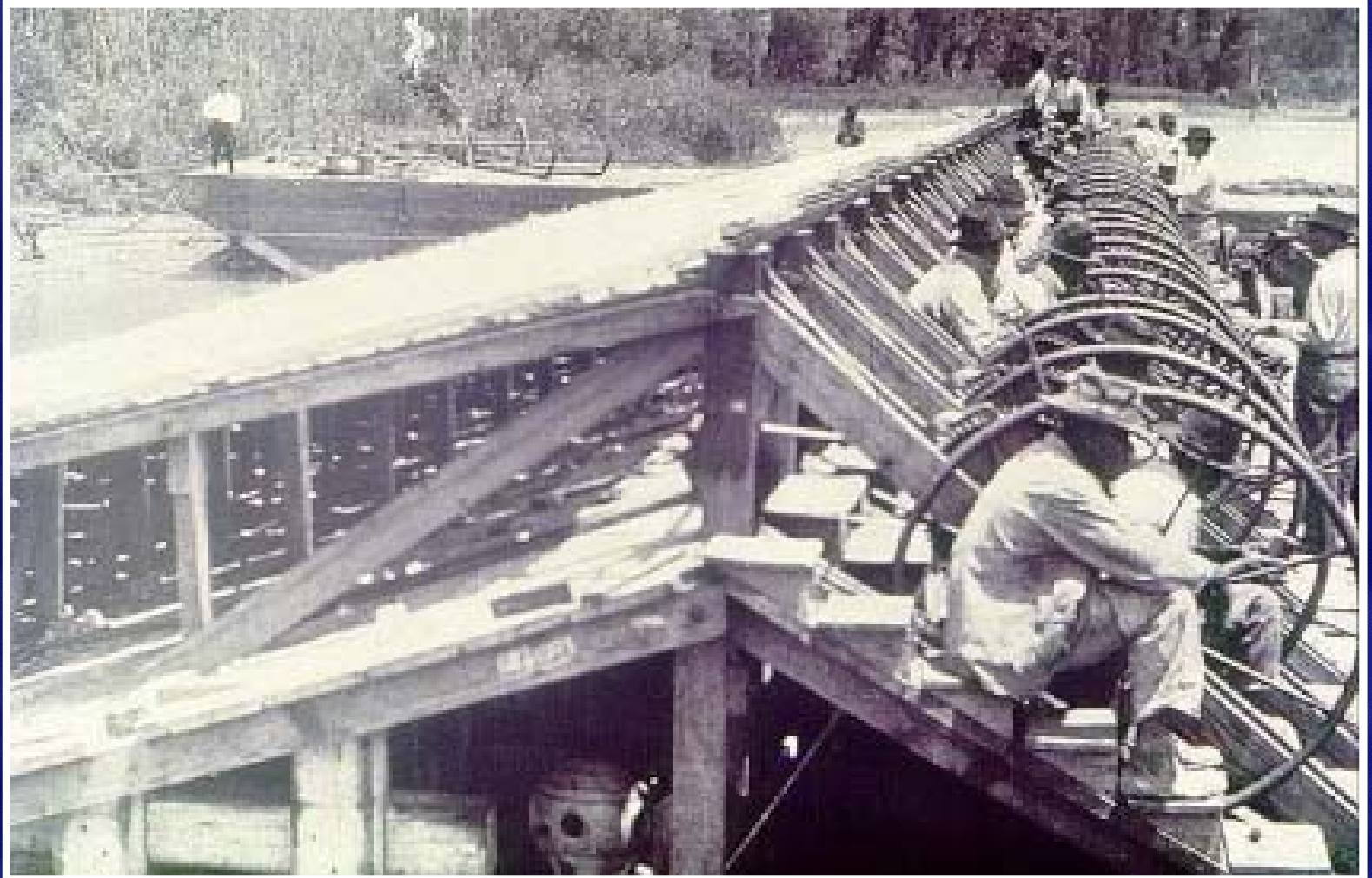
PIANC History

- **“By the turn of the century, P.I.A.N.C. was playing an important role in reciprocal exchanges of information among engineers in Europe, the United States...”**
- **“Through P.I.A.N.C. and other avenues of technology transfer, M.R.C. engineers were able to learn about concrete revetment experiments conducted in other countries.”**
- **“The concrete innovation which seemed to most directly influence work on the Mississippi was developed in Japan. In 1908, B. Okazaki devised a type of reinforced concrete flexible mattress and placed it in a reach of the Yubari River.”**



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MRC Investigation & 1917 Work in Vicksburg



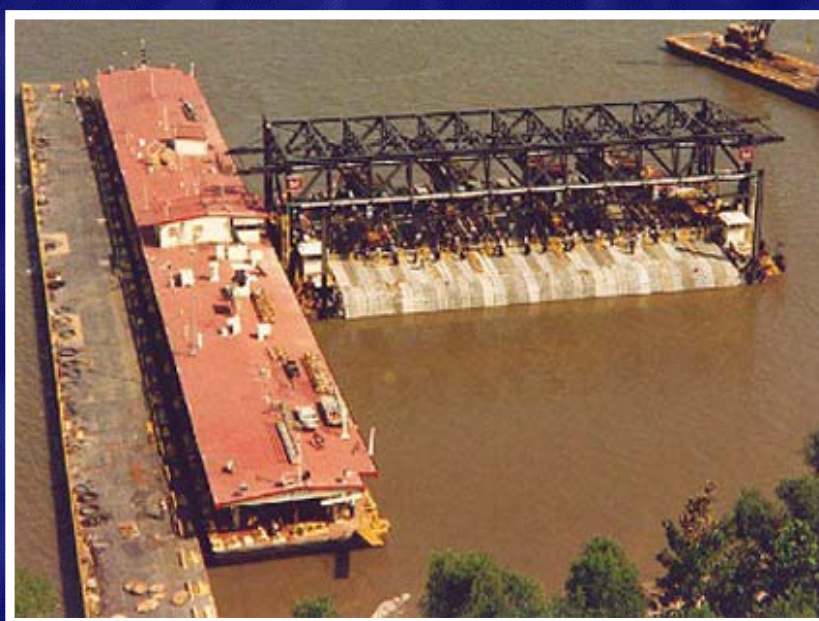


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1930's Concrete Mat Plant











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Okazaki Concept



Present Japanese Method







PIANC Role

